

UV Sensor User Manual

1. Features

| | |
|-----------------------|------------------|
| Boost convertor chip | SGM8521 |
| Operating voltage | 3.0V-5.5V |
| Output type | TTL level output |
| Responsive wavelength | 200nm-370nm |
| Dimensions | 21.0mm*13.0mm |
| Fixing hole size | 2.0mm |

Operating principle:

This module has an UV sensor, GUVA, which is a ideal device for detecting the amount of UV ray without wavelength filter, since it is UV ray sensitive only. In other word, the wavelengths of 365nm(UV-A) and 320nm(UV-B) are the cut-off thresholds of GUVA.

2. Applications

This module can be applied to UV ray detecting system, outdoors UV monitoring device, sterilizing lamp and etc.

3. Interfaces

| Pin No. | Symbol | Descriptions |
|---------|--------|-----------------------------------|
| 1 | AOUT | Analog output |
| 2 | GND | Power ground |
| 3 | VCC | Positive power supply (3.0V-5.5V) |

4. How to use

We will illustrate the usage of the module with an example of UV ray testing by connecting a development board.

- ① Download the relative codes to the development board.
- ② Connect the module to the development board via a serial wire, then, power up the development board and start the serial debugging software. Here is the configuration of the connection between the module and the development board.

| Port | STM32 MUC pin |
|------|---------------|
| AOUT | GPIOA.6 |
| GND | GND |
| VCC | 3.3V |

| Port | Arduino pin |
|------|-------------|
| AOUT | A0 |
| GND | GND |
| VCC | 5V |

Here is the configuration of the serial port

| | |
|------------|--------|
| Baud rate | 115200 |
| Data bits | 8 |
| Stop bit | 1 |
| Parity bit | None |

- ③ Turn on a currency detector and illuminate its UV ray to the UV sensor. You will find that the serial port outputs relative data from the test.